

**SUPPLEMENTAL PRELIMINARY AMENDMENT**  
**U.S. Appln. No. 10/511,685**

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

Claim 1. (Cancelled).

Claim 2. (Previously Presented) A method of culturing microorganisms which comprises culturing a microorganism in a growth medium that is or is prepared from a sterile nutrient composition derived from the biomass of a culture of bacteria including methanotrophic bacteria, wherein said culturing optionally occurs in the presence of further nutrients.

Claim 3. (Previously Presented) The method as claimed in claim 2, wherein said nutrient composition comprises a hydrolysate, homogenizate or autolysate of said biomass.

Claim 4. (Previously Presented) The method as claimed in claim 2, wherein said growth medium further comprises glucose and/or nitrate and mineral salts.

Claim 5. (Previously Presented) The method as claimed in claim 4, wherein the glucose is present in said growth medium in a dry mass basis weight ratio of 5:1 to 1:5, relative to biomass deriving component.

Claim 6. (Previously Presented) The method as claimed in claim 4, wherein the nitrate and mineral salts are present in said growth medium in a weight ratio of 0.01:1 to 0.2:1, relative to the biomass deriving component.

Claim 7. (Previously Presented) The method as claimed in claim 2, wherein the culture of bacteria used to produce the biomass is at least 50% by weight methanotrophic bacteria (relative to the total bacterial weight).

Claim 8. (Previously Presented) The method as claimed in claim 2, wherein said culture of bacteria comprises at least

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one species of methanotrophic bacteria and at least one species of heterotrophic bacteria.

Claim 9. (Currently Amended) The method as claimed in claim 8, wherein said culture comprises *Methylococcus eapsulates*—*capsulatus* (Bath) (strain NCIMB 11132), *Ralstonia* sp. DB3 (strain NCIMB 13287) and ~~*Brevibacillus*~~ *Brevibacillus* *agri* DB5 (strain NCIMB 13289), optionally in combination with *Aneurinibacillus* sp. DB4 (strain NCIMB 13288).

Claim 10. (Previously Presented) The method as claimed in claim 2, wherein said culture of bacteria is produced by fermentation on hydrocarbon fractions or on natural gas.

Claim 11. (Previously Presented) A microorganism growth substrate comprising a sterile nutrient composition derived from the biomass of a culture of bacteria including methanotrophic bacteria, further comprising at least one sterile nutrient, and optionally containing a diluent.

Claim 12. (Previously Presented) The substrate as claimed in claim 11, wherein said sterile nutrient is selected from glucose, nitrate and mineral salts, and combinations thereof.

Claim 13. (Currently Amended) The substrate as claimed in claim 12, wherein the glucose is present in a dry mass basis weight ratio of 5:1 to 1:5, relative to the biomass deriving component.

Claim 14. (Currently Amended) A substrate as claimed in claim 12, wherein the nitrate and mineral salts are present in a weight ratio of 0.01:1 to 0.2:1, relative to the biomass deriving component.

Claim 15. (Previously Presented) The method as claimed in claim 3, wherein said nutrient composition comprises an autolysate of said biomass.

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Claim 16. (Previously Presented) The method as claimed in claim 4, wherein said mineral salts are selected from the group consisting of potassium, calcium, magnesium, sodium, molybdenum, iron, zinc, boron, cobalt, manganese and nickel compounds.

Claim 17. (Currently Amended) The method as claimed in claim 5, wherein the glucose is present in said growth medium in a dry mass basis weight ratio of ~~preferably~~ 2:1 to 1:2, relative to the biomass deriving component.

Claim 18. (Currently Amended) The method as claimed in claim 6, wherein the nitrate and mineral salts are present in said growth medium in a weight ratio of ~~preferably~~ 0.05:1 to ~~0.01:1~~ 0.1:1, relative to the biomass deriving component.

Claim 19. (Previously Presented) The method as claimed in claim 7, wherein the culture of bacteria used to produce the biomass is at least 60% by weight methanotrophic bacteria (relative to the total bacterial weight).

Claim 20. (Previously Presented) The method as claimed in claim 19, wherein the culture of bacteria used to produce the biomass is at least 70% by weight methanotrophic bacteria (relative to the total bacterial weight).

Claim 21. (Previously Presented) The method as claimed in claim 20, wherein the culture of bacteria used to produce the biomass is at least 75% by weight methanotrophic bacteria (relative to the total bacterial weight).

Claim 22. (Previously Presented) The method as claimed in claim 21, wherein the culture of bacteria used to produce the biomass is 75% to 95% by weight methanotrophic bacteria (relative to the total bacterial weight).

Claim 23. (Previously Presented) The method as claimed in claim 22, wherein the culture of bacteria used to produce the

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biomass is 75 to 80% by weight methanotrophic bacteria (relative to the total bacterial weight).

Claim 24. (Previously Presented) The method as claimed in claim 10, wherein said culture of bacteria is produced by fermentation on natural gas.

Claim 25. (Previously Presented) The substrate as claimed in claim 12, wherein said mineral salts are selected from the group consisting of potassium, calcium, magnesium, sodium, molybdenum, iron, zinc, boron, cobalt, manganese and nickel compounds.

Claim 26. (Currently Amended) The substrate as claimed in claim 13, wherein the glucose is present in a dry mass basis weight ratio of ~~preferably~~ 2:1 to 1:2, relative to the biomass deriving component.

Claim 27. (Currently Amended) The substrate as claimed in claim 14, wherein the nitrate and mineral salts are present in a weight ratio of ~~preferably~~ 0.05:1 to ~~0.01:1~~ 0.1:1, relative to the biomass deriving component.